

AMENDMENTS TO THE SPECIFICATION:

Please replace the Abstract of the Disclosure with the following rewritten Abstract which appears on a separate sheet in the Appendix.

Please replace the paragraph beginning at page 6, line 22, with the following rewritten paragraph:

--As shown in Fig. 4, in the internal line information storage 22 is recorded, for each of the internal line numbers, current internal line service condition data 25 showing whether or not the internal telephone line 12 is now in use or the substitutive internal line telephone 14 is in use as a substitute for the internal line telephone 12. The current internal line service condition data 25 is updated every time the internal line is switched over between the internal line telephone 12 and the substitutive internal line telephone 14. Further, in the internal line information storage 22 is recorded IP address/internal line correspondence data 24 as shown in Fig. 3. When the internal line is switched over to the substitutive internal line telephone 14 according to the switching request, in the IP address/internal line correspondence data 24 is recorded an IP address of the substitutive internal telephone line 14 corresponding to the internal line number. Thereafter, when the internal line is switched back to the internal line telephone 12, the IP address/internal line correspondence data 24 is erased. -

Please replace the paragraph beginning at page 7, line 8, with the following rewritten paragraph:

--The substitutive internal line telephone 14 connected to the Internet 40 includes a switching key 15 and an IP address/internal line identification information storage 16.--

Please replace the paragraph beginning at page 7, line 11, with the following rewritten paragraph:

--The switching key 15 is used to transmit the internal line switching request when the substitutive internal line telephone 14 is used as a substitute for the internal line telephone 12. Though a separate key can be mounted as the switching key 15 to the substitutive internal telephone line 14, the function of the switching key 15 may be provided by, for example, combining keys previously attached to the substitutive internal telephone line 14.--

Please replace the paragraph beginning at page 7, line 17, with the following rewritten paragraph:

--The server 50 includes an IP address storage portion 51, and an IP address of the substitutive internal line telephone 14 is stored in the IP address storage portion 51. When presenting a switching request, the substitutive internal line telephone 14 reads an own IP address from the IP address storage portion 51 of the server 50 and transmits the IP address.--

Please replace the paragraph beginning at page 7, line 25, with the following rewritten paragraph:

--In addition, the substitutive internal line telephone 14 includes unillustrated means for transmitting and receiving a control signal and a speech communication signal between the substitutive internal line telephone 14 and the private branch exchange 11 after the private branch exchange 11 accepts a connection request.--

Please replace the paragraph beginning at page 7, line 30, with the following rewritten paragraph:

--Further, the internal line telephone 12 includes a switching indicating lamp 13 indicating that the internal line is switched over to the substitutive internal line telephone 14.--

Please replace the paragraph beginning at page 8, line 25, with the following rewritten paragraph:

--When both internal line identification information are identical and the request is authorized, the current internal line service condition data 25 in the internal line information storage 22 is updated to show that the substitutive internal line telephone 14 is now in use (Step 504). Subsequently, in the IP address/internal line correspondence data 24 of the internal line information storage 22 is stored an IP address corresponding to an internal line number identical with that of the received internal line identification information (Step 505).--

Please replace the paragraph beginning at page 9, line 3, with the following rewritten paragraph:

--Further, the private branch exchange 11 transmits to the substitutive internal line telephone 14 a signal showing that the internal line switching request is accepted (Step 506), and turn on the switching indicating lamp 13 of the internal line telephone 12 (Step 507), thereby posting a message in that the internal line is switched over from the internal line telephone 12 to the substitutive internal line telephone 14.--

Please replace the paragraph beginning at page 9, line 9, with the following rewritten paragraph:

--Thereafter, when a control is requested for the internal line number for which the switching request is accepted in the private branch exchange 11, the private branch exchange 11 recognizes, with reference to the current internal line service condition data 25, that the substitutive internal line telephone 14 is now in use as a substitute for the internal line 12. The private branch exchange 11 assembles the control signal and the speech communication signal into an IP packet in the signal converter 17, and sends the IP packet to the substitutive internal line telephone 14 through the LAN card 18 and over the Internet 40.--

Please replace the paragraph beginning at page 9, line 21, with the following rewritten paragraph:

--Further, by pressing the switching key 15, the substitutive internal line telephone 14 sends an internal line switching-back request to the private branch exchange 11, and the private branch exchange 11 enables the internal line to be switched over from the substitutive internal line telephone 14 to the internal line telephone 12. At the same time, the current internal line service condition data 25 is updated to show that the internal line telephone 12 is now in use, the IP address/internal line correspondence data 24 is erased, and the switching indicating lamp 13 of the internal line telephone 12 is turned off. Thereafter, the control signal and the speech communication signal are exchanged between the private branch exchange 11 and the internal line 12.

Please replace the paragraph beginning at page 10, line 2, with the following rewritten paragraph:

--According to the first embodiment, the internal line control system is operated as set forth above. Thus, the telephone substitutive internal line telephone 14 can be used as a substitute for the internal line telephone 12 in the own office in any place so long as the telephone can be connected to the Internet.--

Please replace the paragraph beginning at page 10, line 7, with the following rewritten paragraph:

--Alternatively, in the above embodiment, the private branch exchange 11 may be provided with means for posting, if the internal line telephone 12 is in use when presenting the switching request by pressing the switching key 15 of the substitutive internal line telephone 14, an in-use message to the substitutive internal line telephone 14. Concurrently, the substitutive internal line telephone 14 may be provided with means for indicating the in-use message by, for example, turning on the lamp, or outputting the message depending upon the posting from the private branch exchange 11.

Please replace the paragraph beginning at page 10, line 21, with the following rewritten paragraph:

--Referring to Fig. 6, in the internal line control system according to the second embodiment, encryption/decryption circuits 61, 62 are mounted to encrypt and decrypt a control signal and a speech communication signal exchanged between a private branch exchange 11 and a substitutive internal line telephone 14. The same reference numerals are used for component parts identical with those in the first embodiment of Fig. 1, and descriptions thereof are omitted.

Please replace the paragraph beginning at page 10, line 28, with the following rewritten paragraph:

--In the embodiment, the control signal and the sound signal are transmitted between the private branch exchange 11 and the substitutive internal line telephone 14 through encryption by the encryption/decryption circuits 61, 62, thereby preventing the control signal and the sound signal from leaking out over the Internet 40. In the encryption/decryption circuits 61 and 62, it is possible to employ one of cryptosystems (such as symmetrical key cryptosystem, and asymmetrical key cryptosystem) in the prior art.

Please replace the paragraph beginning at page 11, line 12, with the following rewritten paragraph:

--Referring to Fig. 7, in the internal line control system according to the third embodiment, a computer 70, as well as a substitutive internal line telephone 14, can be used instead of an internal line telephone 12. The same reference numerals are used for component parts identical with those in the first embodiment of Fig. 1, and descriptions thereof are omitted.

Please replace the paragraph beginning at page 11, line 17, with the following rewritten paragraph:

--The computer 70 including a personal computer (PC) and a mobile PC, is connected to the Internet 40, and can be used for speech communication as a substitute for the internal line telephone 12. Hence, as in the substitutive internal line telephone 14, the computer 70 is provided with a switching key [[15]] 71, an IP address/internal line identification information

storage [[16]] 72, and a speaker 73 and a microphone 74 for exchange of sound (speech communication).

Please replace the paragraph beginning at page 11, line 24, with the following rewritten paragraph:

--In the embodiment, as in the above-mentioned first embodiment, speech communication can be realized by switching over from the internal line telephone 12 to the computer 70. The operation is identical with that in the first embodiment shown in Fig. 5.

Please replace the paragraph beginning at page 12, line 4, with the following rewritten paragraph:

--Referring to Fig. 8, in the internal line control system according to the fourth embodiment, a plurality of private branch exchanges 11a, 11b,...,11n are interconnected through a hub 30. As shown in Fig. 8, the private branch exchanges 11a, 11b,...,11n are connected to the Internet 40 through LAN cards 18a to 18n, and respectively accommodate internal line telephones 12a to 12n. Each private branch exchange includes a signal converter 17, an internal line identification information authenticating apparatus 20, a subscriber data storage 21, and an internal line information storage 22.—

Please replace the paragraph beginning at page 12, line 13, with the following rewritten paragraph:

--Further, instead of the IP address/internal line identification information storage 16 mounted in the substitutive

internal line telephone 14 in the first embodiment, a server 50a includes an IP address/internal line identification information storage 16a. In the IP address/internal line identification information storage 16a are stored IP address and internal line identification information for each of the private branch exchanges 11a, 11b, ..., 11n. The same reference numerals are used for component parts identical with those in the first embodiment of Fig. 1, and descriptions thereof are omitted.

Please replace the paragraph beginning at page 12, line 22, with the following rewritten paragraph:

--In the embodiment, when switching of the internal line is requested from the substitutive internal line telephone 14, the substitutive internal line telephone 14 obtains from the IP address/internal line identification information storage 16a of the server 50a the IP address and the internal line identification information of one of the private branch exchanges 11a, 11b, ..., 11n, upon which the internal line switching request should be made, and transmits the results to the appropriate private branch exchange.

Please replace the paragraph beginning at page 12, line 30, with the following rewritten paragraph:

--Further, the substitutive internal line telephone 14 includes the switching key 15a for selective switching of the internal line telephones 12a to 12n accommodated in the plurality of private branch exchanges 11a, 11b, ..., 11n.

Please replace the paragraph beginning at page 13, line 13, with the following rewritten paragraph:

--After the substitutive internal line telephone 14 is connected to the Internet, the switching key 15a is pressed corresponding to any one of the internal ~~[[lines]]~~ line telephones 12a to 12n, to which the control should be switched over (Step 501). Subsequently, the substitutive internal line telephone 14 obtain from the IP address/internal line identification information storage 16a of the server 50 the IP address of one of the private branch exchanges 11a,11b,...,11n accommodating one of the internal line telephones 12 to 12n, to which the control should be switched over (Step 901), and transmits to the obtained IP address of one of the private branch exchanges 11,11b,...11n an internal line switching request containing an own IP address obtained from an IP address storage portion 51 of the server 50a and internal line identification information stored in the IP address/internal line identification information storage 16a of the server 50a (Step 502).--

Please replace the paragraph beginning at page 14, line 16, with the following rewritten paragraph:

-- Further, instead of the IP address/internal line identification information storage 16 mounted in the substitutive internal line telephone 14 in the first embodiment, a server 50a includes an IP address/internal line identification information storage 16a. In the IP address/internal line identification

information storage 16a are stored IP address and internal line identification information for each of the private branch exchanges 11a, 11b, ..., 11n. The same reference numerals are used for component parts identical with those in the first embodiment of Fig. 1, and descriptions thereof are omitted.

Please replace the paragraph beginning at page 15, line 3, with the following rewritten paragraph:

--Further, the substitutive internal line telephones 14a to 14n include the switching keys 15a to 15n for selective switching of the internal [lines] line telephones 12a to 12n accommodated in the plurality of private branch exchanges 11a, 11b, ..., 11n.

Please replace the paragraph beginning at page 15, line 7, with the following rewritten paragraph:

--In the embodiment, the operation of the internal line control system is identical with that in the fourth embodiment. However, in the fifth embodiment, since the switching may be requested from the plurality of substitutive internal [[lines]] line telephones 14a to 14n, the private branch exchange 11 may be provided with means for posting to the substitutive internal line telephone 14 a message in that the internal line telephone of which switching is requested is in use, or one internal line telephone is used as a substitute for another substitutive internal line telephone. Concurrently, the substitutive internal line telephone 14 may be provided with means for indicating the

situation depending upon the posting from the private branch
exchange 11 by, for example, turning on a lamp, or outputting the
message.